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BAIG, ADNAN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/597,765

Applicant(s)

DALMASES ET AL.

Examiner

ADNAN BAIG

Art Unit

4172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-15 is/are rejected.
- 7) ☒ Claim(s) 6-7 and 16-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/7/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 6, 7, 16, and 17 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only, and, cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 4 recites the limitation "device" in lines 2 of the claim. There is insufficient antecedent basis for this limitation in the claim as it depends from claim 1.

5. Claim 5 lacks insufficient antecedent basis as it depends on claim 4.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Benveniste (US 2002/0163933).

Regarding Claim 1, Benveniste discloses a method of distributed allocation for a Medium Access Control that enables real-time transmission as well as non real-time transmission of devices on an unpredictable medium wherein a time frame comprises at least one part for real-time transmission and another part for non real-time transmission, (Non-real time and real time applications are transmitted in frames within the communication medium [0118-0119]. Referring to Fig. 2A, station 204B contains real time traffic which is sensitive to time delay. Station 204A contains non real time traffic which is insensitive to time of delivery).

characterized by the steps of monitoring the medium, (The traffic within the medium is observed or monitored in order to determine which node receives access to the network. [0081 Lines 1-4]

pre-occupying a slot and sending data. (When a channel is busy, the time slot is pre-occupied, [0221].

The claim language in parenthesis will have no patentable weight as it is referred to as a reference character.

Regarding Claim 2, Benveniste discloses a as claimed in claim 1, characterized in that during the monitoring step a device counts the slots that are already occupied. [0078, 0079 Lines 16-19].

Regarding Claim 3, Benveniste discloses a method as claimed in claim 2, characterized in that the device counts the slots that are already occupied by counting busy and release signals that are transmitted before and after a data package is transmitted by another device, (Three nodes devices are shown in an example [0164], where a count of different time slots from before and after a node is transmitted are taken, which occurs once a time slot in another device is no longer busy).

Regarding Claim 4, Benveniste discloses a method according to any one of the preceding claims, characterized in that the device detects the time used by the slots

within the frame ([0083], The counting device detects or senses the time interval or the amount of time each slot is occupied and holds a reservation time in order to access the medium, [0084 Lines 1-4].

Regarding Claim 5, Benveniste discloses a method as claimed in claim 4, characterized in that the detection of the time used by the slots is done by counting busy signals. (The node monitors the amount of busy signals in the medium to determine whether to transmit a frame or packet, [0079 Lines 14-19]. The detection of time in a node depends on prioritized frames which are counted busy signals in the communication medium, [0080]).

Regarding Claim 11, Beneveniste discloses a method for avoiding collision between a non real-time transmission and the beginning of a time frame, characterized in that a guard slot is generated just before the beginning of the time frame, [0076].

8. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Raphaeli (US 2003/0103521).

Regarding Claim 8, Raphaeli discloses a method for re-organizing the sequence for the medium access of at least two devices when an unused slot is detected, the at least two devices constitute a network wherein time slots are used for data transmission, characterized in that each of the at least two devices sends a busy priority signal and

that the device with the highest priority occupies the unused time-slot and updates its slot number, [0199-0204], [0038].

9. Claims 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura (US 2006/0039347).

Regarding Claim 12, Nakamura discloses a method of synchronizing a device that intends to occupy a time slot in a shared medium wherein a time frame comprises several time slots, (Each node in the network is a device that is synchronized [0016]. Each node or device contains a clock module to occupy a time slot for each frame, [0069]).

characterized in that the device senses the medium for a Master Frame Symbol transmitted by a master device, (master device station transmits a frame, [0016 Lines 3-8])

if a Master Frame Symbol is sensed, the device becomes a client device, transmits an Echo Frame Symbol of first order and adopts the frame time of the master device, (The slave or client device transmits a response to the master station [0063], and receives or adopts frame information from the master station, [0016 lines 3-8]).

if a Master Frame Symbol is not sensed, the device takes on the role of a master device and transmits a Master Frame Symbol, [0056]

Regarding Claim 13, Nakamura discloses a method of synchronizing a device that intends to occupy a time slot in a shared medium wherein a time frame comprises several time slots, (Each node in the network is a device that is synchronized [0016]. Each node or device contains a clock module to occupy a time slot for each frame, [0069]).

a master device sets a time frame and at least one client device transmits an Echo Frame Symbol, characterized in that the device senses the medium for an Echo Frame Symbol of i-th order transmitted by a client device, (The slave or client device transmits a response to the master station [0063]).

if an Echo Frame Symbol of i-th order is sensed and a preset maximum number of hops is not reached, the device transmits an Echo Frame Symbol of -th order, computes the frame time of the master and adopts the frame time of the master device; (a hop count is taken within the medium [0059-0060], and the node or station which becomes the master station will send time frame information which will be adopted or received by a client station, [0016 lines 3-8]).

if an Echo Frame Symbol of i-th order is sensed and a preset number of hops

is reached, the device continues with sensing the medium, (Referring to Fig. 8, a hop count is determined and client station E sends a quality request to client station C which continues to sense or monitor the medium as illustrated in Fig. 7, [0126-0129]).

if any Echo Frame Symbol is not sensed, the device takes on the role of a master device, sets the time frame and transmits a Master Frame Symbol, [0056].

10. Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Fellman (US 2001/0002195).

Regarding Claim 14, Fellman discloses a frame structure for a time frame or super frame that enables both real-time and non real-time transmission, [0021-0022]

characterized in that the frame structure comprises:

a Master Frame Symbol, an Echo Frame Symbol, [0060-0061]

a transmission portion with a first part for real-time transmission and a second part for non real-time transmission. [0021-0022].

Regarding Claim 15, Fellman discloses a frame structure as claimed in claim 14, characterized in that the transmission part comprises time slots, [0053].

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Raphaeli (US 2003/0103521) in view of Benveniste (US 2002/0163933).

Regarding Claim 9, Raphaeli discloses a method as claimed in claim 8, where two devices or node stations are candidates for an unused slot and the device with higher priority packet or frame occupies the slot once the channel is not busy [0199-0204], but does not expressly disclose the packet or frame comprising an application or slot priority field. Benveniste discloses the application and slot priority field within the medium. Referring to Fig. 2A, Beneviste illustrates traffic 214 A and B transmitted to nodes 204 A and B, where the frames have real and non real-time identification assigned to them, [0119 lines 8-10]. Item 208 determines the destination slot of prioritized traffic, [0119-0122]. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to assign slot, real and non-real time application priorities within the communications medium, to ensure sufficient access for quality of service.

Regarding Claim 10, the combination of Raphaeli and Benevinste disclose the method according to claim 9, and further teach that during non real time transmission of the medium, the access is based on a contention-based protocol, [Raphaeli, 0031].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis West can be reached on 571-272-7859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/ADNAN BAIG/
Examiner, Art Unit 4172

/Lewis G. West/
Supervisory Patent Examiner, Art Unit 4172